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# Grasshoppers are here, but no damage yet

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**Abstract**
Grasshopper nymphs were found in central Iowa during late May and they now have reached a size where they are getting the attention of crop scouts. No economic injury has been reported, but their appearance in weedy areas and field edges should serve as an early warning of potential crop damage. There are no good economic thresholds for grasshoppers in either soybean or corn. Old thresholds recommended that you count the number of grasshoppers per square yard, but I have always found this method frustrating.

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Grasshopper nymphs were found in central Iowa during late May and they now have reached a size where they are getting the attention of crop scouts. No economic injury has been reported, but their appearance in weedy areas and field edges should serve as an early warning of potential crop damage.

There are no good economic thresholds for grasshoppers in either soybean or corn. Old thresholds recommended that you count the number of grasshoppers per square yard, but I have always found this method frustrating. Counting grasshoppers in either corn or soybean is a near impossibility because they hide in the foliage or they hop out of the area where you are counting. I suggest that you focus on the amount of leaf defoliation, combined with a nominal threshold (one based on experience), and combine this information with a little common sense in managing grasshoppers. It is usually not too difficult to determine if grasshoppers are abundant so forget trying to count the number per square yard.

In soybean, determine the exact location of grasshoppers in the field and spray only those areas. Grasshoppers are often concentrated along field edges or waterways, but they sometimes occur in large areas out in the center of the field, especially if weeds were present last year. Also, soybean fields that are sprayed with herbicides can make a grasshopper situation worse because the insects move from the dead weeds to the soybean plants, so these areas should be closely monitored. Consider treatment if grasshoppers are present and defoliation reaches 40 percent in the preblooming stages or 20 percent in the pod-forming and pod-filling stages. Reductions in yield can occur during any crop stage and pod-forming and pod-filling stages are at greater risk than other plant stages. A 40 percent leaf loss during any vegetative stage will result in only a 3-7 percent yield reduction. Defoliation of 20 percent during the pod-forming and pod-filling stages will result in similar yield reductions.

In corn, grasshoppers usually are more of a late-summer pest. Injury in corn is more likely to occur beginning in late July. Consider treatment if grasshoppers are present and they are clipping silks, ear tips, or removing large amounts of foliage above the ear leaf. Grasshopper problems in corn usually begin on border rows and then move deeper into the field. Determine how many rows are infested and spray only those rows. Control of grasshoppers in mid-to-late summer may require the services of an aerial applicator because of the crop height.

**Grasshoppers defoliating corn leaves.**

Enlarge [1]

In all crops, remember that grasshopper nymphs will eventually become adults and cause more leaf loss during late July, August, and September, but they should not be sprayed until the injury approaches a level that could cause economic yield loss. This level may not occur until the nymphs become adults. Fortunately, some insecticides provide excellent control of adult grasshoppers. Another consideration before spraying is to use a naturally occurring fungus to reduce grasshopper populations so that economic damage does not occur in the field.

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